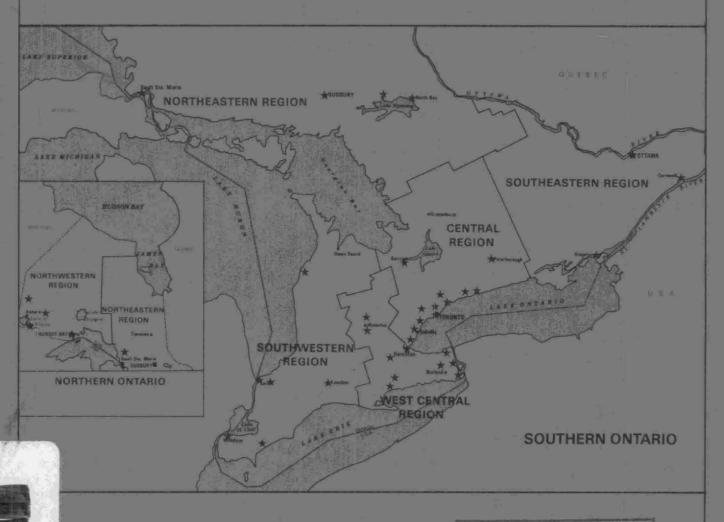
# AIR QUALITY MONITORING REPORTS 1978 Volume 1





Ministry of the Environment Deputy Minister

Hon. Harry C. Parrott, D.D.S.,

Graham W. S. Scott,

TORONTO

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# AIR QUALITY MONITORING REPORT ONTARIO 1978

VOL.1



Ministry of the Environment

Hon. Harry C. Parrott, D.D.S., Minister

Environment Graham W. S. Scott,
Deputy Minister

### Introduction

This report, Volume 1, contains a summary of 1978 air quality data obtained by continuous monitoring instruments operated by the Ministry of the Environment at 102 locations across Ontario. In addition, a summary of sulphur dioxide data from 47 stations operated by Ontario Hydro in the vicinity of their power generating stations has been included.

As in previous years, the monthly summaries of hourly data are given in the remaining four volumes of this report: Volume 2, sulphur dioxide data from 71 stations; Volume 3, soiling index data from 64 stations; Volume 4, carbon monoxide, hydrocarbons (total and reactive), ozone and total reduced sulphur from 22, 15, 26, and 10 stations respectively; Volume 5, the oxides of nitrogen NO,  $NO_2$ , and  $NO_X$  from 21, 23, and 21 stations respectively.

### Sampling Stations

Table 1, lists the stations in the Ontario monitoring network with continuous sampling instruments. The first seven columns give the region in which the monitor is located, the station identification number and address, its bearing on the Universal Transverse Mecator (UTM) Grid, the height of the station above mean sea level, and the height of the air intake above ground. The last seven columns indicate which of the pollutants, total reduced sulphur (TRS), sulphur dioxide (SO<sub>2</sub>), soiling index (COH), ozone (O<sub>3</sub>), carbon monoxide (CO), hydrocarbons — total or reactive — (HC), nitrogen dioxide (NO<sub>2</sub>), nitric oxide (NO), and nitrogen oxides (NO<sub>x</sub>), are being monitored at that station.

The largest number of stations in a region is 27 in the Central Region. The most monitoring instruments (102) are also found in the Central Region. Figure 1 shows the general location of the sampling stations across Ontario as well as the number in each region and city. Figures 2, 3, 4, and 5 show the locations of the sampling stations in Toronto, Hamilton, the Sudbury area, and Windsor respectively.

### Criteria for Desirable Ambient Air Quality

Table 2, outlines the Criteria for Desirable Air Quality in Ontario for those contaminants reported in this report. The criteria are given in units of parts per million by volume and micrograms per cubic meter of air for the sampling time appropriated for each contaminant; 1 hour, 8 hours, 24 hours, or 1 year. The unit for soiling index, a measure of suspended particulate matter, is Coefficient of Haze (COH) per 1000 feet of air sampled.

These criteria serve as a convenient yardstick by which the Province may estimate its success in achieving goals for desirable ambient air quality.

### 1978 Measurements

Acquisition and processing of air quality data in Ontario is the responsibility of the Air Quality and Meteorology Section of the Air Resources Branch. The instrumentation, however, has been installed and maintained by the Technical Support Group in each of the six regional offices since the Ministry decentralized many of its operations in 1974.

Data are acquired in two ways. Data from stations in areas which have a publicized Air Pollution Index are telemetered in real-time to the central data acquisition facility in Toronto where they are digitized, stored on magnetic tape, and then computer-processed. All other data are recorded locally on analogue charts which are later read and digitized by the Data Analysis Group in Toronto and then processed by computer in the same way as the telemetered data.

In this Volume, the annual summary of hourly readings for each station and contaminant is reported in a single line giving the number of days on which valid data were monitored, the percentile distribution, the arithmetic mean, the maximum 1-hour and 24-hour readings, and, where appropriate, the number of times the air quality criteria were exceeded.

## Analyses of Data Sulphur Dioxide (see Table 3)

Inventoried emissions of sulphur dioxide in 1978 were approximately 1.4 million tonnes, of which 0.78 million tonnes were emitted in the primary smelting of nickel, copper and iron in the Sudbury and Wawa areas. (Note that  $SO_2$  emissions were reduced in 1978 due to a strike at INCO Ltd., the largest smelter.) Thermal generating stations are the largest sources of  $SO_2$  in southern Ontario accounting for 0.44 million tonnes annually. The remaining 0.18 million tonnes are emitted by industrial, commercial, and residential fuel users as well as refineries, coke ovens, and other industrial operations. It should be noted, however, that community air quality is, on the long term, affected more by small, nearby sources emitting at low elevations than by large and distant sources emitting from tall stacks.

Of the 71 stations in the Ontario network, none recorded annual average levels above the 1-year criterion of 0.02 ppm. Eleven stations reported days exceeding the 24-hour criterion of 0.10 ppm; the 1-hour criterion of 0.25 ppm was exceeded at twenty-seven stations.

The highest annual average (0.019 ppm) was measured at three sites: Happy Valley, Falconbridge; 156 Victoria

St., Sarnia, and Beatrice St., Welland. The highest 24-hour average (0.57 ppm) was measured at Happy Valley. The highest hourly measurement (2.51 ppm) was recorded at 29 Hillcrest Ave., Wawa.

### Suspended Particulate Matter Soiling Index (see Tables 4 and 5)

Traditionally, the public has identified air pollution with black or dark smoke. Improved combustion technology and an increase in the use of fuels other than coal has eliminated black smoke as a major pollutant. Fine particles of smoke from combustion and dust from construction, grinding processes, and transportation constitute what is termed "suspended particulate matter". The soiling properties of a sample of suspended particulate deposited upon a filter are measured by the reduction of light transmitted through the soiled filter and is related to both the opacity and darkness of the deposit. The evaluation is carried out on 1-hour or 2-hour samples and is known as the soiling index. The unit of measure for soiling index is the Coefficient of Haze (COH) per 1000 feet of air sampled.

The annual average criterion of 0.5 COH/1000 ft. was surpassed at three locations, two in Hamilton, and one in Windsor. The maximum annual value (0.67) was recorded at North Park in Hamilton. The 24-hour criterion of 1.0 COH/1000 ft. was exceeded at twenty-one stations but only five did so more than ten times during 1976. These were North Park, Hamilton (78), Barton-Wentworth, Hamilton (26), Bathurst-Wilson, North York (23), Sherbourne/Wilton, Toronto (21), and 461 University Ave., Windsor (11).

### Carbon Monoxide (see Table 6)

In terms of total weight and concentration, carbon monoxide leads all other contaminants in city air. Mobile sources, trucks and automobiles, are almost exclusively responsible. Although pollution control equipment has reduced the output per car, the increase in the number of vehicles on many streets has limited the overall reduction.

The highest levels of carbon monoxide were measured at 381 Yonge St. in Toronto. This stations, located close to a major traffic artery and within the urban street canyon, measured an annual average of 5.4 ppm, an eighthour average maximum of 35 ppm and maximum one-hour average of 47 ppm. This was the only monitoring site in Ontario to exceed both the criteria of 30 ppm for one hour (50 times) and 13 ppm averaged over eight hours (47 times). The only other site to exceed the criteria was the monitor located at 67 Collete St., 2nd Floor, Toronto which exceeded the eight-hour criterion once with a reading of 15 ppm.

### Hydrocarbons (see Table 7 and 8)

Hydrocarbons are emitted naturally from trees and vegetation; they are also emitted by vehicles, gasoline storage tanks, and filling tanks.

Two types of measurements are made of hydrocarbons in Ontario. The first type uses flame ionization techniques to measure all hydrocarbons and is reported as total hydrocarbons. Methane, however, does not participate in the number of photochemical reactions which form oxidants. Thus, techniques have been developed to remove the methane fraction from the total hydrocarbon measurement. This measurement has been termed reactive hydrocarbons.

There are not criteria for total or reactive hydrocarbons in Ontario. The highest annual mean level at the fifteen total hydrocarbon monitoring locations was 2.56 ppm at Elmcrest Rd., Etobicoke. The maximum annual mean level reported from the limited reactive hydrocarbon data was 1.72 ppm at Barton-Wentworth in Hamilton.

### Ozone (see Table 9)

Ozone is a naturally occurring constituent of the upper atmosphere. In the lower atmosphere, it is a secondary product of photochemical reaction among reactive hydrocarbons and nitrogen oxides. In the upper atmosphere, ozone plays an important role in the maintenance of life on the ground by absorbing harmful ultra-violet radiation. In the lower atmosphere, however, ozone is detrimental to the health of man and plants as well as enhancing damage to various materials.

Since time is needed for the afore-mentioned photochemical reactions to be completed, ozone is often found some distances from the source of its pollutant precursors. Thus, high concentration of ozone which occur at rural location such as Simcoe and Wesleyville are not indicative of natural or local sources but the transport and reaction in the presence of adequate sunlight of the ozone precursors from upwind urban sources.

The highest annual average ozone concentrations measured in Ontario were at the rural locations Simcoe (0.035 ppm), Wesleyville (0.034), Holland Marsh (0.031), Huron Park (0.030 ppm), and Orono (0.030 ppm). The maximum daily average occurred at Simcoe (0.116 ppm). All monitoring stations exceeded the Ontario ozone criterion for one hour of 0.080 ppm. Seven stations exceeded the criterion over 200 times: Simcoe (348), Wesleyville (304), Orono (252), Petrolia (249), Kitchener (240), Stouffville (210), and Windsor (201). The highest single hour measured occurred at Orono: 0.181 ppm.

### Total Reduced Sulphur (see Table 10)

The first extensive monitoring of total reduced sulphur began in Ontario in 1976. Most of the total reduced sulphur may be found in the form of hydrogen sulphide. In the vicinity of pulp and paper mills and refineries, significant concentrations of mercaptans and other reduced sulphurs may be present, however,

Maximum levels of total reduced sulphur occurred at Portage-Church in Fort Frances for all averaging times. The values were 16.1 ppb for 1 year, 183 ppb for 24 hours, and 540 ppb for 1 hour. Three of the eleven stations had hourly values which exceeded 100 ppb. No criteria have yet been set for total reduced sulphur.

density highways. The maximum annual average (0.165 ppm) occurred at Pharmacy-Hwy 401 in Scarborough. This site and the Sherbourne/Wilton site in Toronto both recorded a 1-hour average maximum of 1.02 ppm. The maximum 24-hour average was found at Bathurst-Wilson, North York (0.46 ppm).

### Oxides of Nitrogen (see Tables 11, 12, and 13)

The oxides of nitrogen (NO and  $NO_2$ ) are generated by natural as well as anthropogenic sources. Nitrogen and oxygen, which are the principal constituents of the atmosphere, combine during high temperature combustion to form nitrogen oxides ( $NO_x$ ). The main sources of  $NO_x$  are automobile exhausts, power plants, incinerators and chemical processes.

No evidence exists that nitric oxide (NO) at the concentrations measured in the atmosphere has any direct adverse effect on health and welfare. Photochemical oxidation of nitric oxide to nitrogen dioxide (NO<sub>2</sub>), however, does occur under certain conditions, and nitrogen dioxide is known to affect health as well as visibility. The nitrogen oxides also play an important role in the photochemical reactions involving ozone and other oxidants.

The highest annual level of nitrogen dioxides (.046 ppm) was measured at the Barton-Wentworth site in Hamilton. The highest 24-hour average (0.12 ppm) was also measured at Barton-Wentworth, Hamilton. The maximum 1-hour concentration (0.24 ppm) was measured at Sherbourne/Wilton in Toronto. The established criterion for 24-hour average of NO<sub>2</sub> (0.10 ppm) was exceeded at three sites though none on more than 3 occasions. The hourly criterion was exceeded at two sites.

The maximum nitric oxide levels occurred at Pharmacy-401, Scarborough for all three averaging times: 0.129 ppm for the year; 0.40 ppm for a day; 0.96 ppm for an hour.

Nitrogen oxides, essentially the sum of the NO and NO<sub>2</sub> levels, were highest at sites adjacent to high traffic

### **Ontario's Air Pollution Index**

An Air Pollution Index (API) based upon the 24-hour average concentration of sulphur dioxide and suspended particulate matter has been in use in Ontario since March 1970. Air Pollution Index stations were established in Toronto and Hamilton in 1970, Sudbury and Windsor in 1971, Welland and Niagara Falls in 1974, Coniston in 1975, New Sudbury in 1976, and Sarnia in 1977. The station opened in Happy Valley was discontinued in 1975 and the Welland station was closed in 1978. The API at all stations have a common basis; at an API of 32, the desirable air quality criteria for sulphur dioxide and soiling index on a 24-hour average are exceeded. When the API exceeds 50, health effects may increase in incidence, especially for the elderly and those with respiratory problems.

At an API of 32 with adverse weather conditions expected for the next 6 hours, suspected offending industries are alerted and may be asked to cut-back on their operations. At an API of 50 with adverse conditions expected for 6 hours, the Minister may order curtailment of industrial operations, and a shut-down may be ordered by the Minister if the Index exceeds 100.

Of the nine stations operational in 1978, none exceeded the level of 50, and six exceeded 32. Hamilton was on an advisory alert on seven occasions, Sarnia and Coniston on three occasions, Toronto twice, and New Sudbury and Windsor once each.

The history of the Index stations, the maximum level and the number of times the Index equalled or exceeded 32 and 50 for the years 1970 to 1978 are given in Table 14.

Table 1/1978 Stations with Continuous Sampling Instrumentation (Pollutant data abstracted hourly or two-hourly)

- DANGE	STATION	NAME OF		1 GRID	SITE ELE- VATION ABOVE MEAN SEA LEVEL	AIR INTAKE ABOVE GROUND							ORED		
REGION	NUMBER	STATION	EAST	NORTH	(METRES)	(METRES)	TRS	so <sub>2</sub>	сон	$O_3$	co	HC	NO <sub>2</sub>	NO	NOX
SOUTH	10001	College of Agric.													
WEST	12002	Tech., Huron Park City Hall	04600	47931	243	5				×					
		Windsor	03323	46867	183	15			×						
	12008	467 University Ave. Windsor	03316	46867	183	11		.,		.,					***
	12010	Manning Road	03310	40007	103	Ĭ.i.		×	x	х	X	х	×	X	х
	12013	Pump Station Wyandotte St.	03460	46875	182	1			×						
	12013	Windsor	03358	46874	183	6		×	x						
	12014	Univ. Met. Stn.													
		College/Calif. St. Windsor	03304	46849	183	1			×						
	12015	Hwy 18-Prospect							5.3						
	12016	Windsor College-South St.	03283	46833	175	4		x	x						
		Windsor	03290	46841	183	4		×	×						
	12032	Morton Dock													
	13021	Windsor MOE Pump, Stn.	03271	46817	177	4		×	×						
		Middle Road													
	14004	Merlin Hydro SS	03991	46776	190	3				×					
	, 100 ,	Concession 14/15													
	14016	Courtright Lambton G.S.	03808	47343	183	3		×							
	14010	Hwy. 40													
	1.40.40	Courtright	03793	47397	180	4		×							
	14049	156 Victoria St. Sarnia	03854	47584	183	4	x	x	×	х	×	×	×	×	×
	14062	242 Indian Rd. S.,					***						^		25
	14064	Sarnia Centennial Park	03878	47578	183	4		×							
	1 NIB: A	Front St/CN Tracks			/ = V										
	14118	Sarnia PUC Water Pump Stn.	03854	47592	182	3		×	х	×	x	х	×	×	×
		Hwy. 21		Victorian Co.	500.00										
	15001	Petrolia King-Rectory	04027	47564	206	4				×					
		London	04818	47595	259	4		×	×	×	×	×	×	×	×
	15003	362 Dundas St. London	04801	47590	251	17			140						
	18001	MacKenzie	04001	47550	251	17			×						
		RR2 Tiverton	04541	49030	220	4									
		Tiverton	04541	49030	220	4	×	x							
WEST CENTRAL	21006	Post Office Brantford	05597	47763	224	10									
CLIVITIAL	22071	Experimental Farm	05597	47703	221	16		x	×						
	22000	Simcoe	05597	47449	236	4		×	x	×			×	x	×
	22086	Cheapside Rd. 3 Km S of Hwy 3													
	20004	Nanticoke	05821	47472	206	5		×	×				x	x	×
	26001	Public Utilities Substation													
		Waterloo	05397	48128	336	2			×						
	26029	Edna/Frederick St. Kitchener	05427	48116	325	5		×	x	v	v.				
	26035	Uniroyal,	00 127	10110	020	3		^	^	x	X		х		
		149 Strange St. Kitchener	05396	48109	336	6									
	27013	PS Victoria/Leader	00000	70105	330	О			X						
	27027	Niagara Falls PS 301 Beatrice St.	06570	47752	175	5		×	x						
	21021	Welland	06432	47587	183	3		×	×						
	27037	North/Geneva St.													
	27038	St. Catharines Rosehill/MacDonald	06431	47805	107	5		×	x	×	×	X	×		
		Fort Erie	06649	47495	178	4		×							

Table 1/1978 - Continued . . .

					SITE ELE- VATION ABOVE MEAN SEA	AIR INTAKE ABOVE									
REGION	STATION NUMBER	NAME OF STATION	UTM EAST	NORTH	LEVEL (METRES)	GROUND (METRES)	TRS	SO <sub>2</sub>	COH			HC	NO <sub>2</sub>	NO	NOX
WEST	29001	Hughson-Main													
CENTRAL		Hamilton	05918	47894	99	9			×						
	29008	North Park Hamilton	05984	47927	79	3			**					100	
	29009	Kenilworth	03304	4/32/	7.5	3	×	×	×				X	×	x
	20000	Hamilton	05967	47884	92	9			×						
	29012	Burlington-													
		Wellington		2000		<b>14</b> 7									
	20015	Hamilton	05931	47914	84	4			×						
	29015	Merrick St. Hamilton	05917	47900	92	17			×						
	29017	Chatham-Frid	05517	47300	32				^						
		Hamilton	05898	47896	99	5			×						
	29025	Barton-Wentworth													
		Hamilton	05939	47900	92	4	×	×	×	×	×	X	×	x	x
	29026	Brampton-Woodward Hamilton	05006	4700E	0.4	4		96							
	29067	450 Hughson St.	05996	47895	84	4		×							
	2000.	Hamilton	05925	47913	84	5			×						
	29080	City Hall													
		Hamilton	05914	47895	107	9		×							
CEN-	31001	67 Callege St													
TRAL	31001	67 College St. 5th Floor													
		Toronto	06300	48352	104	20		×	×	×	x	×	×	×	×
	31049	Mission, 381 Yonge	0.000	3.4											
		Street, Toronto	06304	48351	91	4					×				
	31090	67 College St. 2nd Floor, Toronto	06300	40252	104										
	31105	Sherbourne/Wilton	06300	48352	104	4					×				
	000	Toronto	06317	48338	76	5		×	×	x	x		×	×	×
	33002	Pharmacy-Hwy. 401												85.5	520
		Scarborough	06357	48473	175	2		x	×		×	×	×	×	×
	33003	Lawrence-Kennedy	00000	40.450	400										
	33019	Scarborough Met. Branch, Scar,	06389	48452	168	3		×	×	×	×	X	×	×	×
	000.0	Bluffs, Scarborough	06422	48411	152	3		×	×						
	34002	Science Centre		27.00		-		183							
		Don Mills,													
		North York	06338	48419	107	9		×	x	x	×	×	×	×	×
	34007	Bathurst-Wilson North York	06261	48437	214	2									
	35003	Elmcrest Rd.	00201	40437	214	2		×	×		×	×	×	×	x
		Etobicoke	06142	48338	152	4		×	×	×	×	×	×	×	×
	35005	Queensway Hospital													
		Etobicoke	06149	48293	107	9		×	x						
	35008	22-36th St.	00100	40001	00										
	35033	Etobicoke Evans-Arnold	06190	48281	92	2			×						
	55555	Etobicoke	06192	48302	107	3		×	×	×	×	×	×	×	×
	35050	MOE Lab.				-		-	~		~	~	^	2	•
		Resources Road													
	44007	Etobicoke	06175	48405	152	18		×	×						
	44007	2037 Pine Burlington	05975	47975	79	6									
	44010	1298 Rebecca St.	03575	4/3/3	75	0		x	x						
		Oakville	06053	48078	92	5		×	×	x	×	×	x	×	×
	45024	206 Eulalie St.													-
	45405	Oshawa	06723	48623	101	1			×						
	45125	Natural Res. Bldg. Orono	06907	48712	140	•									
	46025	Public Library	00907	40/12	149	9				×					
		Mississauga	06115	48257	137	5			×						
	46033	Fire Hall													
	40400	Bramalea	06053	48398	198	4			×						
	46100	Public School Green Glade Road,													
		Mississauga	06124	48187	92	11		×	×						
		er en et de la companie de la compa	AND THE PARTY OF T	ುಹಾ <i>ು ಕ್</i> ಪ	32			^	^						

Table 1/1978 — Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM EAST	I GRID NORTH	SITE ELE- VATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TRS	SO <sub>2</sub>	POLL			ONITO	RED NO <sub>2</sub>	NO	NOX
CEN-	46110	Queensway West/													
TRAL	47030	Hurontario St. Mississauga Muck Res. Stn.	06122	48249	101	5		x	×	х	х		×	×	×
	47041	Hwy. 400/Canal Rd. Holland Marsh Fed. Manpower Bldg., 48 Owen St.	06124	48772	214	4				x					
	48002	Barrie MTC Yard	06044	49159	236	14		х	×						
	58034	Stouffville 1.6M West Hwy 28/ 5th Line Road,	06391	48694	259	4		х	×	x					
	59006	Wesleyville City Hall 500 George St.	07139	48770	152	3				×					
		Peterborough	07137	49095	198	18		х	×						
SOUTH EAST	51001	McDonald Gdns Ottawa	04471	50312	61	4		х	×	×	×		×	×	×
27403	52018	1055 Princess St. Kingston	03788	48990	82	15			x	.,					
	52020	Churchill Park				5		· ·							
	56051	Napier St. Kingston Memorial Park	03795	48986	82			×	х	ū					
	56068	Cornwall 435 Second St. W. Cornwall	05208 05205	49846 49845	61 66	6	×	x	×	×	х		х	х	×
NORTH	61010	Lassie/Dickenson													
WEST		Roads Balmertown	04480	56670	381	3		х							
	61026	56 King St. Dryden	05117	55140	366	5	×								
	62030 62032	Portage/Church Fort Frances Cemetery Coloni-	04708	53838	336	4	×								
	63012	zation Road Fort Frances Dawson Court	04697	53841	336	5	×								
		Thunder Bay	03372	53686	213	9		х							
	63022	Hospital 35 Algoma St. N. Thunder Bay	03356	53672	223	22		х	×						
	63040	435 James Street Thunder Bay	03302	53607	189	15		×	×						
	63046	Montreal St. Thunder Bay	03298	53584	191	15	×								
NORTH EAST	71001	29 Hillcrest Ave. Wawa	06655	53186	305	4		×							
	71002	Goudreau Algoma District	06835	53578	358	4		x							
	71022	Sault College Queens Street Sault Ste. Marie	07029	51550	210	5		x	×						
	75016	Dept. of Transport Verner	05668	51405	214	15		×	,						
	75020	Teacher's College North Bay	06185	51297	206	3		x	х						
	77001	Penage Sudbury Dist.	04730	51250	250	3		×							
	77009	Burwash Sudbury Dist.	05144	51228	229	3		×							
	77010	Callum Sudbury Dist.	05270	51525	250	3		×							
	77012	Skead Sudbury Dist.	05186	51678	274	3		x							

Table 1/1978 - Continued . . .

					SITE ELE- VATION ABOVE MEAN SEA	AIR INTAKE ABOVE									
	STATION	NAME OF		GRID	LEVEL	GROUND			POLL						
REGION	NUMBER	STATION	EAST	NORTH	(METRES)	(METRES)	TRS	SO <sub>2</sub>	сон	$O_3$	CO	HC	NO <sub>2</sub>	NO	NOX
NORTH	77013	Hanmer													
EAST		Sudbury Dist.	05041	51663	290	3		×							
	77014	Rayside	2 3/2												
		Sudbury Dist.	04930	51600	250	3		×							
	77016	Ash Street						-							
		Sudbury	04994	51486	290	3		×	x	×	×		x	×	×
	77017	Morgan		3		•			^	•			^	^	^
		Sudbury Dist.	04810	51637	274	3		×							
	77018	St. Charles	190 / 100		0=2.50 1.0			-							
		Sudbury Dist.	05449	51343	290	3		×							
	77019	Grassy Lake			====	•									
		Sudbury Dist.	05536	51854	259	3		x							
	77023	Happy Valley				-									
		Falconbridge	05146	51564	288	5		×	×						
	77026	19 Lisgar St.				127		(85							
		Sudbury	05006	51485	274	14			×						
	77028	Government/Edward	296.76.00.000	2000	1-0-0	186.000									
		Coniston	05118	51480	244	5		x	×						
	77052	Lockerby				-		(5)5	.5.5						
		Sudbury Airshed	04999	51444	274	5		×							
	77065	Falconbridge Rd.				-									
		Sudbury	05109	51559	290	5		×							
	77066	Temagami													
		Sudbury Airshed	05704	52022	296	5		×							
	77067	Chiniguchi				=									
		Sudbury Airshed	05264	52064	317	5		×							
	77075	Kennedy St.						12.24							
		New Sudbury	05044	51520	262	5		x	×						

Table 2/1978
Criteria for Desirable Air Quality. O. Reg. 872/74

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
TEM	NAME OF CONTAMINANT	UNIT OF MEASUREMENT	AVERAGE AMOUNT CONCENTRATION OR TOTAL AMOUNT OF CONTAMINANT	PERIOD OF TIME	APPROXIMATE EQUIVALENT AT 10°C AND 760 mm Hg PRESSURE
3	Carbon Monoxide	Parts of carbon monoxide per one million parts of	30	1 hour	36,200 ug/m³
		air by volume	13	8 hours	15,700 ug/m³
16	Nitrogen Dioxide	Parts of nitrogen dioxide per one million parts	0.20	1 hour	400 ug/m³
		of air by volume	0.10	24 hours	200 ug/m³
18	Ozone	Parts of ozone per one million parts of air by volume	0.08	1 hour	165 ug/m³
19	Soiling	Coefficient of Haze	1.0	24 hours	
		per 1000 feet of air	0.5	1 year	
21	Sulphur Dioxide	Parts of sulphur dioxide	0.25	1 hour	690 ug/m³
		per one million parts of air by volume	0.10 0.02	24 hours 1 year	275 ug/m³ 55 ug/m³

Table 3/1978 Summary of Data: Sulphur Dioxide (all values in p.p.m.)

Ontario Criteria — 1 Hour Average: 0.25 p.p.m.; 24-Hour Average: 0.10 p.p.m.; 1 Year Average: 0.02 p.p.m.

	STATION		NO. OF		PE	RCE	NTIL	ES		ARITH- METIC	MAX	CIMUM		BER OF T	
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
SOUTH	12008	467 University Ave.													
WEST	40040	Windsor	362	.000	.002	.009	.018	.037	.077	.018	.17	.06	NIL	NIL	NIL
	12013	Wyandotte St. Windsor	311	000	000	.000	003	014	041	.006	.12	.05	NIL	NIL	NIL
	12015	Hwy 18-Prospect		.000	.000	.000	.000			.000		.00			
	12016	Windsor	338	.000	.000	.002	800.	.021	.051	.010	.10	.04	NIL	NIL	NIL
	12016	College—South St. Windsor	360	.000	.000	.006	.014	.030	.066	.015	.15	.05	NIL	NIL	NIL
	12032	Morton Dock													
	14004	Windsor Hydro SS	319	.000	.003	.008	.016	.029	.063	.016	.12	.05	NIL	NIL	NIL
	14004	Concession 14/15													
	14016	Courtright	327	.000	.000	.000	.000	.012	.052	.005	.67	.09	7	NIL	NIL
	14016	Lambton G.S. Hwy 40													
		Courtright	340	.000	.002	.009	.017	.033	.079	.018	.32	.07	2	NIL	NIL
	14049	156 Victoria St. Sarnia	347	000	000	.005	011	043	165	.019	.63	.14	17	5	NIL
	14062	242 Indian Rd. S.	347	.000	.000	.005	.011	.040	.100	.015	.00	.1.7			INIL
	14064	Sarnia Contannial Book	330	.000	.000	.001	.007	.022	.071	.010	.22	.05	NIL	NIL	NIL
	14004	Centennial Park Front St./CN Tracks													
	45004	Sarnia	152	.000	.000	.004	.011	.034	.126	.016	.48	.10	2	NIL	NIL
	15001	King—Rectory London	320	.000	.000	.002	.008	.019	.046	.009	.10	.05	NIL	NIL	NIL
	18001	MacKenzie, R.R. 2													
		Tiverton	332	.000	.000	.000	.000	.000	.009	.001	.07	.01	NIL	NIL	NIL
WEST	21006	Post Office													
CENTRAL	00074	Brantford	344	.000	.000	.000	.004	.012	.029	.006	.14	.04	NIL	NIL	NIL
	22071	Experimental Farm Simcoe	316	.000	.000	.000	.005	.015	.044	.007	.15	.06	NIL	NIL	NIL
	22086	Cheapside Rd.													
		3 km S of Hwy 3 Nanticoke	207	nnn	nnn	.003	กกล	019	091	.011	.39	.08	6	NIL	NIL
	26029	Edna/Frederick St.								.011	.00	.00	Ü		.v.L
	27013	Kitchener P.S. Victoria/Leader	337	.000	.000	.000	.002	.010	.029	.005	.07	.04	NIL	NIL	NIL
	27013	Niagara Falls	359	.000	.000	.002	.007	.016	.038	.008	.09	.04	NIL	NIL	NIL
	27027	P.S. 301 Beatrice St.	201	000	000	000	040	000	070	010	20	00		KILL	N111
	27037	Welland North/Geneva St.	291	.000	.003	.009	.018	.038	.076	.019	.30	.08	2	NIL	NIL
		St. Catharines	325	.000	.000	.000	.006	.015	.036	.007	.15	.06	NIL	NIL	NIL
	27038	Rosehill/Mac Donald Fort Erie	315	000	000	.005	010	021	050	.012	.15	.06	NIL	NIL	NIL
	29008	North Park	010	.000	.000	.000	.010	.021	.000	.012		.00	1112	1115	IVIL
	29025	Hamilton	354	.000	.000	.003	.010	.035	.068	.013	.13	.07	NIL	NIL	NIL
	29025	Barton—Wentworth Hamilton	363	.000	.001	.006	.014	.033	.079	.016	.29	.07	1	NIL	NIL
	29026	Brampton-Woodward	140	000	001	000	012	007	057	014	10	06	NIII	NIII	NILL
	29080	Hamilton City Hall	142	.000	.001	.006	.013	.027	.057	.014	.10	.06	NIL	NIL	NIL
		Hamilton	142	.000	.003	.009	.018	.035	.070	.018	.15	.06	NIL	NIL	NIL
CENTRAL	31001	67 College St. 5th Flr.													
,		Toronto	363	.000	.000	.002	.008	.023	.034	.011	.22	.09	NIL	NIL	NIL
	31105	Sherbourne/Wilton Toronto	355	000	000	.000	007	019	048	.009	.15	.04	NIL	NIL	NIL
	33002	Pharmacy-Hwy 401								.000		.0.		****	
	33003	Scarborough Lawrence—Kennedy	360	.000	.000	.003	.008	.019	.052	.010	.20	.07	NIL	NIL	NIL
	33003	Scarborough	349	.000	.000	.000	.004	.012	.040	.006	.18	.07	NIL	NIL	NIL
	33019	Met. Branch													
		Scarborough Bluffs Scarborough	315	.000	.001	.005	.010	.020	.048	.012	.18	.06	NIL	NIL	NIL
	34002	Science Centre													
		Don Mills North York	150	000	000	.000	one	017	040	.008	.14	.04	NIL	NIL	NIL
	34007	Bathurst-Wilson	130	.000	.000	,000	.000	.017	.∪+5	.000	•	.04	INIL	INIL	INIL
		North York	358	.000	.000	.003	.008	.021	.059	.011	.19	.07	NIL	NIL	NIL

Table 3/1978 - Continued . . .

BEOLO:	STATION	10017:00	NO. OF			RCE				ARITH-		KIMUM	ABC	BER OF T	ERIA
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
CENTRAL	35003	Elmcrest Rd.													
	25005	Etobicoke	344	.000	.000	.000	.006	.017	.053	.008	.21	.06	NIL	NIL	NIL
	35005	Queensway Hospital Etobicoke	346	000	000	.002	007	019	057	.010	.25	.08	NIL	NIL	NIL
	35033	Evans – Arnold	040	.000	.000	.002	.007	.015	.007	.010	.25	.00	****	MIL	MIL
		Etobicoke	348	.000	.000	.000	.005	.014	.042	.007	.12	.05	NIL	NIL	NIL
	35050	MOE Lab Resources Rd.													
		Etobicoke	348	.000	.001	.006	.011	.025	.072	.014	.39	.07	2	NIL	NIL
	44007	2037 Pine													
	44010	Burlington	293	.000	.000	.004	.009	.019	.038	.011	.10	.05	NIL	NIL	NIL
	44010	1298 Rebecca St. Oakville	349	.000	.000	.002	.007	.018	.047	.009	.13	.08	NIL	NIL	NIL
	46100	Public School	0 10					.0.0		.555		.00			
		Green Glade Rd.											1000		1907-01111
	46110	Mississauga Queensway West/	324	.000	.000	.003	.009	.021	.056	.011	.13	.07	NIL	NIL	NIL
	40110	Hurontario St.													
	Applements of the	Mississauga	316	.000	.000	.000	.005	.017	.054	.008	.22	.06	NIL	NIL	NIL
	47041	Fed. Manpower Bldg. 48 Owen St.													
		Barrie	311	.000	.000	.003	.008	.017	.036	.009	.07	.05	NIL	NIL	NIL
	48002	MTC Yard	100,000	18.5											
	50000	Stouffville	293	.000	.000	.000	.002	.011	.017	.005	.13	.07	NIL	NIL	NIL
	59006	City Hall 500 George St.													
		Peterborough	325	.000	.000	.000	.000	.009	.029	.004	.08	.05	NIL	NIL	NIL
	b														
SOUTH EAST	51001	McDonald Gdns. Ottawa	335	000	000	.001	011	USS	061	.013	.15	.06	NIL	NIL	NIL
LAST	52020	Churchill Park	333	.000	.000	.001	.011	.033	.001	.013	.15	.00	NIL	INIL	MIL
		Napier St.													
	EC0E1	Kingston	353	.000	.000	.000	.000	.008	.023	.003	.08	.03	NIL	NIL	NIL
	56051	Memorial Park Cornwall	353	000	000	.006	015	037	095	.017	.42	.09	2	NIL	NIL
		Somman	000	.000	.000	.000	.010	.007	.000	.517		.00	•	141.	141.
NORTH	61010	Lassie/Dickenson Rds.								222	22.00	2.0	192	=	22
WEST	63012	Balmertown Dawson Court	335	.000	.000	.000	.000	.010	.330	.014	.75	.21	133	9	NIL
	555.2	Thunder Bay	176	.000	.000	.000	.000	.000	.028	.002	.19	.02	NIL	NIL	NIL
	63022	Hospital													
		35 Algoma St. N. Thunder Bay	156	000	000	.000	000	000	002	.000	.05	.00	NIL	NIL	NIL
	63040	435 James Street	100	.000	,000	.000	.000	.000	.002	.000	.00	.00		141L	MIL
		Thunder Bay	345	.000	.000	.000	.000	.000	.015	.001	.17	.02	NIL	NIL	NIL
NORTH	71001	29 Hillcrest Ave.													
EAST	71001	Wawa	344	.000	.000	.000	.000	.000	.318	.012	2.51	.27	102	11	NIL
	71002	Goudreau	Total Search Color		700-10 PM-00-100	(National course)	COLUMN THE STATE OF								
	71022	Algoma District Sault College	131	.000	.000	.000	.000	.048	.278	.017	.66	.14	41	3	NIL
	71022	Queens St.													
		Sault Ste. Marie	325	.000	.000	.000	.003	.013	.075	.008	.75	.13	9	3	NIL
	75016	Dept. of Transport	257	000	000	000	000	003	nac	002	22	02	2	KILL	NIII
	75020	Verner Teacher's College	357	.000	.000	.000	.000	.003	.026	.002	.33	.03	3	NIL	NIL
		North Bay	322	.000	.000	.000	.000	.009	.038	.004	.22	.04	NIL	NIL	NIL
	77001	Penage	244	000	000	000	000	005	007	004					4
	77009	Sudbury District Burwash	341	.000	.000	.000	.000	.005	.067	.004	.42	.07	6	NIL	NIL
	,,,,,,	Sudbury District	343	.000	.000	.000	.000	.007	.087	.005	.39	.10	9	NIL	NIL
	77010	Callum													
	77012	Sudbury District	349	.000	.000	.000	.000	.009	.086	.005	.34	.06	4	NIL	NIL
	77012	Skead Sudbury District	358	000	000	.000	000	012	249	.011	.90	.16	84	5	NIL
	77013	Hanmer	500	.000	.000	.000	.000	.012	,240		.50	. 10	04	3	INIL
		Sudbury District	339	.000	.000	.000	.000	.010	.099	.006	.55	.08	12	NIL	NIL
	77014	Rayside Sudbury District	348	000	000	.000	000	005	055	.003	.75	10	5	NID	Na i
	77016	Ash Street	370	.500	.000	.UUU	.000	.005	.000	.003	.75	.10	5	NIL	NIL
		Sudbury	364	.000	.000	.001	.007	.021	.130	.012	1.02	.11	22	1	NIL

Table 3/1978 — Continued . . .

	STATION		NO. OF		PE	RCE	NTIL	S		ARITH- METIC	MA	KIMUM		BER OF T	
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN		24-HR.	1 HR.	24-HR.	1 YEAR
NORTH	77017	Morgan													
EAST		Sudbury District	365	.000	.000	.000	.000	.000	.046	.002	.35	.06	1	NIL	NIL
	77018	St. Charles Sudbury District	355	000	000	000	.000	011	046	.005	.23	.03	NIL	NIL	NIL
	77019	Grassy Lake	000	.000	.000	.000	.000	.011	.040	.000	.20	.00	1412	141 C	1416
		Sudbury District	144	.000	.000	.000	.000	.007	.028	.003	.18	.03	NIL	NIL	NIL
	77023	Happy Valley Falconbridge	263	000	000	000	.000	019	475	.019	1.65	.57	130	9	NIL
	77028	Government/Edward		,,,,,	.000	.000	.000	.010		.0 10	1.00	.07		Contraction of the last of the	
	77050	Coniston	360	.000	.000	.000	.005	.021	.176	.013	.91	.18	50	4	NIL
	77052	Lockerby Sudbury Airshed	336	.000	.000	.000	.000	.007	.108	.006	.75	.19	25	3	NIL
	77065	Falconbridge Rd.				/ warranger	-					477			
	77066	Sudbury Temagami	344	.000	.000	.000	.000	.016	.153	.009	.69	.10	27	NIL	NIL
	77000	Sudbury Airshed	142	.000	.000	.000	.000	.001	.028	.002	.16	.02	NIL	NIL	NIL
	77067	Chiniguchi	404	200	000	000	000	000	074	225	0.5	0.5	****	****	
	77075	Sudbury District Kennedy St.	131	.000	.000	,000	.000	.009	.074	.005	.25	.05	NIL	NIL	NIL
	,,,,,,	New Sudbury	359	.000	.000	.000	.007	.024	.156	.013	1.77	.19	36	2	NIL
ONTARIO		4.9 km ENE													
HYDRO		Keith G.S.													
		Windsor	276	.001	.005	.010	.017	.031	.069	.014	.14	.04	NIL	NIL	NIL
		5.4 km E Keith G.S.	335	.002	.006	.010	.016	.030	.071	.014	.18	.07	NIL	NIL	NIL
		5.7 km ESE												F18-15	****
		Keith G.S. 5.6 km SE	354	.000	.002	.006	.012	.027	.060	.011	.20	.04	NIL	NIL	NIL
		Keith G.S.	241	.000	.000	.003	.008	.020	.058	.007	.11	.04	NIL	NIL	NIL
		6.8 km SSE	200	000	000	000	000	010	050	007	.52	.04	1	NIL	NILL
		Keith G.S. 7 km NE	306	.000	.000	.003	.008	,019	.053	.007	.52	.04		MIL	NIL
		Lambton G.S.		larere	202	202				2122	2127	40	_	1972	27.000
		Courtright 8 km ENE	320	.000	,001	.004	.008	.021	.092	.009	.48	.05	2	NIL	NIL
		Lambton G.S.	310	.000	.000	.002	.006	.020	.071	.007	.19	.06	NIL	NIL	NIL
		5 km E Lambton G.S.	334	000	000	002	.010	022	075	.008	.31	.06	5	NIL	NIL
		7 km ESE	334	.000	,000	.002	.010	.022	.075	.000	.51	,00	5	INIL	MIL
		Lambton G.S.	323	.000	.001	.003	.007	.018	.078	.008	.24	.05	NIL	NIL	NIL
		6 km SE Lambton G.S.	248	.000	.000	.002	.005	.014	.059	.006	.50	.07	2	NIL	NIL
		7 km N		3.53.5	10.000 F.	10.70.00		T	F 10.000	AMENIA TI	NS 51	200.0	_	3 1070000	.7 (S)(S)( <del>-1</del> )
		Nanticoke G.S. Nanticoke	303	000	000	001	.005	016	054	.006	.39	.06	2	NIL	NIL
		15 km N	300							.000	.00	.00	2	,,,,,	3312
		Nanticoke G.S. 9 km NNE	313	.000	.000	.002	.006	.015	.047	.006	.19	.06	NIL	NIL	NIL
		Nanticoke G.S.	280	.000	.000	.003	.008	.020	.075	.008	.71	.07	6	NIL	NIL
		16 km NNE	0.70												**
		Nanticoke G.S. 17 km NNE	279	.000	.001	.002	.007	.019	.076	.008	.36	.06	2	NIL	NIL
		Nanticoke G.S.	192	.000	.000	,000	.003	.016	.055	.005	.24	.06	NIL	NIL	NIL
		10 km NE Nanticoke G.S.	182	000	000	002	.006	020	059	.007	.14	.06	NIL	NIL	NIL
		19 km NE	102	.000	.000	.002	.000	.020	.000	.007	.175	.00	IVIL	MIL	MIL
		Nanticoke G.S.	276	.000	.000	.002	.007	.019	.057	.007	.23	.04	NIL	NIL	NIL
		11 km ENE Nanticoke G.S.	230	000	001	002	.006	015	039	.006	.13	.03	NIL	NIL	NIL
		18 km ENE								.500		.00		1412	,
		Nanticoke G.S. 5 km E	344	.000	.000	.002	.007	.018	.045	.006	.16	.06	NIL	NIL	NIL
		Nanticoke G.S.	244	.000	.002	.004	.008	.018	.056	.008	.20	.06	NIL	NIL	NIL
		13 km W	101	000	004	004	000	040	000	007	00	05		NU	
		Nanticoke G.S. 3 km WNW	191	.000	.001	.004	.008	.018	.039	.007	.26	.05	1	NIL	NIL
		Nanticoke G.S.	348	.000	.000	.002	.005	.012	.036	.005	.21	.04	NIL	NIL	NIL
		20 km WNW Nanticoke G.S.	286	.000	.001	.002	.005	014	.046	.006	.13	.06	NIL	NIL	NIL
			200	.000	.501	.552	.555	.5,7	.5 70	.000	.10	.00	1416	1416	1416

Table 3/1978 - Continued . . .

	STATION		NO. OF		PE	RCE	NTIL	ES		ARITH- METIC	MAX	(IMUM		BER OF T	
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
		8 km NNW													
ONTARIO		Nanticoke G.S.	281	.000	.000	.002	.006	.017	.050	.006	.28	.06	2	NIL	NIL
HYDRO		11 km NNW										22.5	=		
		Nanticoke G.S.	320	.000	.000	.002	.005	.015	.046	.006	.20	.06	NIL	NIL	NIL
		15 km NNW													
		Nanticoke G.S.	325	.000	.001	.003	.007	.016	.040	.006	.30	.04	1	NIL	NIL
		7 km NNE													
		Lakeview G.S.	257	000	000	000	0.0	005	000	040	4.14		4.000	****	
		Mississauga 5 km ENE	357	.000	.002	.006	.012	.025	.062	.010	.14	.07	NIL	NIL	NIL
		Lakeview G.S.	352	000	002	004	.008	022	070	.009	.28	.07	1	NIL	NILL
		2 km W	332	.000	.002	.004	.000	.022	.075	.003	.20	.07	'	MIL	NIL
		Lakeview G.S.	345	.000	.002	.004	.009	.022	.066	.009	.14	.07	NIL	NIL	NIL
		7 km W									** 1				
		Lakeview G.S.	352	.000	.000	.003	.009	.020	.078	.008	.28	.06	1	NIL	NIL
		6 km NW													
		Lakeview G.S.	313	.000	.001	.004	.008	.018	.052	.007	.27	.06	1	NIL	NIL
		6 km NNW	277	000	000	000	000	000	004	000	-		_	220.7	2.76.7
		Lakeview G.S. 9 km NNE	277	.000	.000	.003	.009	.020	.064	.008	.44	.06	3	NIL	NIL
		Hearn G.S.													
		Toronto	261	000	001	004	.008	022	054	.008	.17	.08	NIL	NIL	NIL
		12 km NNE					.500	.022	.00	.000		.00		14112	IVIL
		Hearn G.S.	322	.000	.000	.000	.010	.020	.047	.006	.18	.07	NIL	NIL	NIL
		8 km NE													
		Hearn G.S.	233	.000	.004	.008	.014	.029	.081	.013	.22	.08	NIL	NIL	NIL
		15 km WSW								20.00	name.	VIRTER			
		Hearn G.S. 7 km NNW	352	.000	.002	.004	.008	.022	.079	.009	.28	.07	1	NIL	NIL
		Hearn G.S.	267	001	004	007	.012	025	065	.011	.22	.07	NIL	NIL	NITT
		10 km N	207	.001	.004	.007	.012	.025	.005	.011	.22	.07	INIL	INIL	NIL
		Lennox G.S.													
		Bath	357	.000	.000	.000	.002	.007	.023	.003	.22	.04	NIL	NIL	NIL
		7 km NE													
		Lennox G.S.	306	.000	.000	.000	.003	.008	.027	.003	.06	.04	NIL	NIL	NIL
		10 km SW	0.70	000	000	000	004		000				2		wor.es
		Lennox G.S. 10 km W	272	.000	.000	.002	.004	.010	.029	.004	.07	.04	NIL	NIL	NIL
		Lennox G.S.	225	000	റററ	000	.002	008	025	.003	.07	.04	NIII	ALLI	NILL
		10 km NW	225	.000	.000	.000	.002	.000	.025	.003	.07	.04	NIL	NIL	NIL
		Lennox G.S.	343	.000	.000	.001	.003	.009	.028	.003	.08	.05	NIL	NIL	NIL
		4 km N													
		Thunder Bay G.S.													
		Thunder Bay	339	.000	.000	.001	.003	.010	.041	.004	.15	.03	NIL	NIL	NIL
		5 km WSW	215	000	000	000	000	046	055				4	2 95 9	2
		Thunder Bay G.S. 5 km W	215	.000	.000	.000	.000	.010	.050	.003	.37	.03	1	NIL	NIL
		Thunder Bay G.S.	361	000	000	000	.003	010	033	.004	.16	.02	NIL	NOT	NULL
		4 km WNW	301	.000	.000	.000	.003	.010	.032	.004	.10	.02	NIL	NIL	NIL
		Thunder Bay G.S.	345	.000	.000	.000	.002	.010	.028	.003	.29	.02	1	NIL	NIL
		8 km NNW												A TVÍ	
		Thunder Bay G.S.	228	.000	.000	.000	.002	.007	.020	.002	.11	.14	NIL	NIL	NIL

Table 4/1978 Summary of Data: Soiling Index — 1 Hour (all values are in COH's/1,000 ft.)
Ontario Criteria — 24-Hour Average—1.0 COH's/1,000 ft. 1 Year Average—0.5 COH's/1,000 ft.

	STATION		NO. OF			PERC	ENTIL	ES		ARITH- METIC	MAX	IMUM		OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	24-HR.	1 YEAR
SOUTH WEST	12008	467 University Ave. Windsor	354	.09	.24	.38	.57	.94	1.76	.51	3.9	1.8	11	ĵ
	12016 14049	College-South St. Windsor 156 Victoria St.	361	.02	.20	.31	.47	.82	1.59	.44	3.1	1.3	5	NIL
		Sarnia	232	.00	.13	.25	.40	.69	1.20	.35	2.9	1.0	NIL	NIL

Table 4/1978 - Continued . . .

	STATION		NO. OF			PERC	ENTII	LES		ARITH- METIC	MAX	амим		OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	24-HR.	1 YEAR
SOUTH WEST	14064	Centennial Park Front St./CN Tracks												
	15001	Sarnia King-Rectory	157	.00	.11	.21	.35	.67 .65	1.27	.32	2.4	1.2	2	NIL NIL
		London	361	.00	.10	.23	.37	.05	1.33	.32	3.3	1.4	2	NIL
WEST CENTRAL	22071	Experimental Farm Simcoe	318	.00	.04	.16	.26	.46	.88	.24	2.6	1.0	NIL	NIL
	27013	P.S. Victoria/Leader Niagara Falls	361	.00	.13	.24	.38	.67	1.26	.34	3.7	1.2	2	NIL
	27027	P.S. 301 Beatrice St. Welland	292	.00	.05	.19	.31	.59	1.12	.28	2.2	0.9	NIL	NIL
	29008	North Park Hamilton	360	.00	.23	.53	.89	1.34	1.97	.67	3.3	1.6	78	1
	29025	Barton-Wentworth Hamilton	361	.11	.26	.40	.62	1.08	1.94	.56	3.7	2.2	26	1
CENTRAL	31001	67 College St., 5th floor	363	.00	.17	.27	.43	.76	1.41	.40	3.3	1.5	4	NIL
	31105	Sherbourne/Wilton	361	.14	.28	.44	.66	1.07	2.08	.59	4.0	1.7	21	NIL
	33002	Pharmacy-Hwy. 401 Scarborough	353	.00	.17	.30	.50	.88	1.60	.43	3.9	1.3	6	NIL
	33003	Lawrence-Kennedy Scarborough	356	.00	.15	.27	.44	.84	1.74	.41	3.7	1.4	10	NIL
	34002	Science Centre Don Mills												
	34007	North York Bathurst-Wilson	156	.00	.15	.27	.43	.76	1.51	.39	2.4	1.5	3	NIL
	35003	North York Elmcrest Rd.	362	.00	.17	.34	.62	1.08	1.88	.51	3.8	2.1	23	NIL
	35033	Etobicoke Evans-Arnold	239	.00	.06	.17	.29	.59	1.15	.28	2.6	1.1	1	NIL
	00000	Etobicoke	354	.00	.19	.32	.49	.85	1.63	.44	3.5	1.8	4	NIL
NORTH EAST	77016	Ash St. Sudbury	364	.00	.00	.00	.14	.29	.79	.13	4.0	0.9	NIL	NIL
	77028	Government/Edward Coniston	359	.00	.00	.02	.16	.38	.98	.16	4.0	8.0	NIL	NIL
	77075	Kennedy St. New Sudbury	358	.00	.00	.00	.15	.30	.78	.13	1.5	0.5	NIL	NIL

Table 5/1978 Summary of Data: Soiling Index — 2 Hour (all values are in COH's/1,000 ft.)

Ontario Criteria — 24-Hour Average—1.0 COH's/1,000 ft. 1 Year Average—0.5 COH's/1,000 ft.

	STATION		NO. OF		F	PERCE	ENTIL	ES		ARITH- METIC	MAX	ІМИМ		OF TIMES CRITERIA
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	2 HR.	24-HR	24-HR	1 YEAR
SOUTH- WEST	12002	City Hall Windsor	285	.00	.13	.23	.42	.75	1,28	.36	3.3	1.0	NIL	NIL
	12010	Manning Rd. Pump Station												
		Windsor	269	.00	.00	.14	.24	.48	1,06	,22	3.1	8.0	NIL	NIL
	12013	Wyandotte St.												
		Windsor	284	.00	.07	.18	.29	.63	1.24	.29	2.3	0.9	NIL	NIL
	12014	University Met. Stn. College/Calif, St.												
		Windsor	265	.00	.14	.23	.43	.79	1.55	.38	3.2	1.3	4	NIL
	12015	Hwy, 18-Prospect												
		Windsor	285	.00	.13	.23	.40	.68	1.41	.35	4.4	0.9	NIL	NIL
	12032	Morton Dock										0.000 mW		
		Windsor	276	.00	.11	.18	.28	.51	1.05	.27	2.1	8.0	NIL	NIL
	15003	362 Dundas St.												
		London	313	.00	.00	.12	.21	.46	1.01	.20	2.6	0.9	NIL	NIL

Table 5/1978 — Continued . . .

	STATION		NO. OF			PERCE				ARITH- METIC		IMUM	ABOVE	OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	2 HR.	24-HR	24-HR	1 YEAR
WEST	21006	Post Office											_	
CENTRAL	22000	Brantford	307	.00	.00	.13	.20	.38	.71	.19	1.8	0.6	NIL	NIL
	22086	Cheapside Rd. 3 Km S, of Hwy, 3												
		Nanticoke	192	.00	.00	.00	.13	.23	.50	.11	1.1	0.4	NIL	NIL
	26001	Public Utilities Substation	2012											
	26029	Waterloo Edna/Frederick St.	338	.00	.00	.09	.17	.29	.70	.15	1.5	0.7	NIL	NIL
	20029	Kitchener	350	.00	.10	.17	.27	.59	1.39	.28	2.8	1.3	2	NIL
	26035	Uniroyal				-11102				.20	2.0		-	71.2
		149 Strange St. Kitchener	126	.00	.06	14	21	20	00	24			ž.	2000
	27037	North/Geneva St.	120	.00	.00	.14	.21	.38	.88	.21	2.1	1.1	1	NIL
		St. Catharines	358	.00	.01	.14	.21	.40	.78	.20	2.8	0.7	NIL	NIL
	29001	Hughson-Main Hamilton	350	00	00	10	25	40	4.40	0.5				
	29009	Kenilworth	350	.00	.08	.16	.25	.49	1.16	.25	2.0	1.0	NIL	NIL
		Hamilton	306	.00	.00	.11	.17	.28	.66	.15	1.5	0.5	NIL	NIL
	29012	Burlington-Wellington Hamilton	217	00	00		40	20					2.2.	
	29015	Merrick St.	317	.00	.00	,11	.18	.29	.64	.16	0.9	0.4	NIL	NIL
		Hamilton	321	.00	.08	.17	.28	.61	1.28	.28	2.8	1.2	1	NIL
	29017	Chatham-Frid Hamilton	220	00	07	10	25		4.40					200
	29067	450 Hughson St.	329	.00	.07	.16	.25	.48	1.10	.25	4.4	1.1	1	NIL
		Hamilton	346	.00	.06	.16	.24	.46	.88	.23	2.3	0.9	NIL	NIL
CENTRAL	33019	Met. Branch												
CENTRAL	33019	Scar, Bluffs												
		Scarborough	363	.00	.00	.12	.19	.32	.67	.17	1.2	0.5	NIL	NIL
	35005	Queensway Hospital	202	-00						2.5	2.3	2.2		
	35008	Etobicoke 22-36th St.	362	.00	.00	.14	.22	.46	1.03	.21	5.4	8.0	NIL	NIL
	AND	Etobicoke	343	.00	.00	.11	.18	.30	.68	.16	1.2	0.5	NIL	NIL
	35050	MOE Lab.												
		Resources Rd. Etobicoke	365	.00	.03	.16	.25	.49	1.09	.24	2.1	0.8	NIL	NO
	44007	2037 Pine	505	.00	.00		.23	.45	1.03	.24	2.1	0.0	NIL	NIL
	44010	Burlington	336	.00	.00	.10	.18	.43	.87	.18	1.7	0.6	NIL	NIL
	44010	1298 Rebecca St. Oakville	354	.00	.00	.11	.19	.43	1.03	.19	2.1	1.0	NIII	
	45024	206 Eulalie St.	054	.00	.00		.13	.43	1.03	.19	2.1	1.0	NIL	NIL
	40005	Oshawa	188	.00	.12	.20	.34	. <b>6</b> 5	1.26	.32	2.7	0.9	NIL	NIL
	46025	Public Library Mississauga	350	.00	.00	.15	.24	.48	.95	.23	2.2	0.0	NIII.	N
	46033	Fire Hall	330	.00	.00	.13	.24	.40	.93	.23	2.2	8.0	NIL	NIL
	40400	Bramalea	356	.00	.00	.00	.08	.18	.36	.08	0.7	0.2	NIL	NIL
	46100	Public School Green Glade Rd.												
		Mississauga	359	.00	.00	.13	.20	.39	.82	.19	2.0	0.6	NIL	NIL
	46110	Queensway West/												
		Hurontario St. Mississauga	359	.00	.06	.17	.26	.50		20	2.0			
	47041	Fed. Manpower Bldg.	333	.00	.00	.17	.20	.50	1.11	.26	2.6	1,1	NIL	NIL
		48 Owen St.												
	48002	Barrie MTC Yard	354	.00	.00	.12	.20	.43	1.05	.20	2.0	0.9	NIL	NIL
	40002	Stouffville	343	.00	.00	.00	.11	.19	.41	.09	0.7	0.3	NIL	NIL
	59006	City Hall									71.	0.0		
		500 George St. Peterborough	274	.00	.00	.13	.20	.40	.88	10	2.0	0.7	****	
		reterborougn	2/4	.00	.00	.13	.20	.40	.00	.19	2.6	0.7	NIL	NIL
SOUTH-	51001	McDonald Gdns.												
EAST	52018	Ottawa 1055 Princess St.	261	.00	.00	.11	.17	.29	.65	.16	1.9	0.5	NIL	NIL
	32310	Kingston	323	.00	.00	.09	.17	.28	.61	.15	1.3	0.5	NIL	NIL
	52020	Churchill Park			-	_			,,,		.,,5	0.0	HILL	INIL
		Napier St. Kingston	342	00	00	10	17	20	0.4				****	F-17-
	56051	Memorial Park	342	.00	.00	.10	.17	.29	.64	.15	1.3	0.6	NIL	NIL
		Cornwall	327	.00	.00	.13	.19	.34	.88	.18	2.3	8.0	NIL	NIL

Table 5/1978 — Continued . . .

	STATION		NO. OF		F	PERCE	NTIL	ES		ARITH- METIC	MAX	IMUM		OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	2 HR.	24-HR	24-HR	1 YEAR
NORTH- WEST	63022	Hospital 35 Algoma St. N.												
	63040	Thunder Bay 435 James St.	248	.00	.00	.11	.18	.30	.65	.16	1.7	0.5	NIL	NIL
	63040	Thunder Bay	287	.00	.00	.04	.15	.26	.55	.13	1,5	0.4	NIL	NIL
NORTH- EAST	71022	Sault College Queens St.											-	
	75020	Sault Ste. Marie	283	.00	.06	.17	.28	.62	1.36	.28	2.5	1.1	1	NIL
	75020	Teacher's College North Bay	334	.00	.00	.11	.18	.34	.90	.17	1.6	0.7	NIL	NIL
	77023	Happy Valley Falconbridge	245	.00	.00	.00	.13	.24	.47	.11	2.7	0.3	NIL	NIL
	77026	Lisgar St. Sudbury	277	.00	.00	.13	.20	.39	.82	.19	1.8	1.0	NIL	NIL

Table 6/1978 Summary of Data: Carbon Monoxide (all values are in p.p.m.)
Ontario Criteria — 1 Hour Average: 30 p.p.m. 8 Hour Average: 13 p.p.m.

	STATION		NO. OF		D	ERCE	NTILI	-8		ARITH- METIC	мач	IMUM	NUMBER (	
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	8-HR.	1 HR.	8-HR.
0011711	10000	107 11 1 1 1												
SOUTH- WEST	12008	467 University Ave. Windsor	362	0.7	1.2	1.6	1.9	2.7	4.7	2.2	17	8	NIL	NIL
WEST	14049	156 Victoria St.	302	0.7	1.2	1.0	1.5	2.7	4.7	2.2	.1.6	O	INIL	INIL
	11010	Sarnia	198	0.0	0.2	0.6	1.0	1.9	3.8	1.2	8	5	NIL	NIL
	14064	Centennial Park												
		Front St./CN Tracks												
		Sarnia	162	0.0	0.0	0.0	0.0	0.7	1.9	0.4	11	5	NIL	NIL
	15001	King-Rectory												
		London	345	0.0	0.0	0.2	0.7	1.5	4.4	0.9	15	7	NIL	NIL
WEST	26029	Edna/Frederick St.												
CENTRAL	0.000	Kitchener	346	0.0	0.4	0.7	1.2	2.0	5.2	1.4	16	7	NIL	NIL
	27037	North/Geneva St.												
		St. Catharines	352	0.0	0.1	0.4	0.7	1.4	3.0	0.9	8	5	NIL	NIL
	29025	Barton-Wentworth												
		Hamilton	284	0.0	0.2	0.6	1.0	1.9	4.0	1.2	9	5	NIL	NIL
CENTRAL	31001	67 College St., 5th floor												
02	31001	Toronto	357	0.2	8.0	1.2	1.7	2.4	4.0	1.8	13	9	NIL	NIL
	31049	Mission		2002.00	==		8.80		0.7.3		1,00	-	7 27 22	* 22 500
		381 Yonge St.												
		Toronto	197	0.6	1.9	3.2	5.4	10.7	30.2	5.4	47	35	50	47
	31090	67 College St., 2nd floor	name s		-	2000	121112		-		10.727	27.000	200.00	100
	04405	Toronto	364	1.2	2.0	2.7	3.6	5.3	9.3	3.5	29	15	NIL	1
	31105	Sherbourne/Wilton Toronto	361	0.1	0.4	0.7	1.2	2.0	4.4	1.5	18	8	NIL	NIL
	33002	Pharmacy-Hwy, 401	301	0.1	0.4	0.7	1.2	2.0	4.4	1.5	10	0	IVIL	NIL
	00002	Toronto	335	0.2	0.8	1.3	1.8	2.9	5.7	2.0	15	7	NIL	NIL
	33003	Lawrence-Kennedy												_
		Scarborough	353	0.2	0.6	1.2	1.9	3.2	6.1	2.0	13	8	NIL	NIL
	34002	Science Centre												
		Don Mills	450								_	_	****	****
	24007	North York	156	0.2	0.9	1.3	1,7	2.6	5.3	1.9	9	7	NIL	NIL
	34007	Bathurst-Wilson North York	355	1.1	1.5	1.9	2.7	4.0	6.8	2.8	15	8	NIL	NIL
	35003	Elmcrest Rd.	300	1.1	1.5	1.5	2.7	4.0	0.0	2.0	15	O	INIL	IVIL
	00000	Etobicoke	358	0.1	0.5	8.0	1.4	2.3	4.6	1.6	11	6	NIL	NIL
	35033	Evans-Arnold	-			0.0				110	• •			
		Etobicoke	358	0.2	0.7	1.2	1.7	2.6	4.7	1.8	11	7	NIL	NIL
	44010	1298 Rebecca St.												
	402 0 0 0	Oakville	358	0.1	0.5	0.9	1.4	2.0	4.0	1.6	17	8	NIL	NIL
	46110	Queensway West/												
		Hurontario St.	250	0.0	10	1.0		~ *		10	2.5	~	K113	KILL
		Mississauga	359	0.3	1.0	1.3	1.7	2.1	4.6	1.9	15	6	NIL	NIL

### Table 6/1978 — Continued . . .

	STATION		NO. OF		P	ERCE	TILE	s		ARITH- METIC	MAX	IMUM	NUMBER (	
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	8-HR.	1 HR.	8-HR.
SOUTH- EAST	51001	McDonald Gdn.	240					10201						
CASI	56051	Ottawa Memorial Park	342	0.0	0.0	0.0	0.4	0.9	2.8	0.5	19	10	NIL	NIL
		Cornwall	343	0.0	0.0	0.0	0.3	0.9	2.4	0.5	13	7	NIL	NIL
NORTH- EAST	77016	Ash Street Sudbury	360	0.0	0.0	0.0	0.0	0.7	2.5	0.3	6	4	NIL	NIL

Table 7/1978 Summary of Data: Total Hydrocarbons (all values are in p.p.m.)
No Existing Criteria

	STATION		NO. OF			PERCE	NTILES			ARITH- METIC	MA	XIMUM
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	PART THE PARTY NAMED IN	24-HR
SOUTH-	12008	467 University Ave.										
WEST		Windsor	343	1.61	1.88	2.11	2.38	2.96	5.10	2.27	9.8	5.4
	14049	156 Victoria St.										
		Sarnia	197	1.91	2.11	2.35	2.76	3.55	5.56	2.64	11.4	4.6
	14064	Centennial Park Front St./CN Tracks										
	14004	Sarnia	146	1.22	1.40	1.54	1.75	2.04	0.05		-	
	15001	King-Rectory	140	1.22	1.40	1.54	1.75	2.34	3.95	1.74	7.0	3.4
		London	328	1.75	2.01	2.24	2.51	3.05	5.31	2.43	15.3	6.4
			020	1.70	2.01	4.47	2.01	3,03	5.51	2.43	15.3	6.4
CENTRAL	31001	67 College St., 5th floor										
		Toronto	317	0.95	1.19	1.36	1.55	1.96	3.20	1.48	8.8	3.4
	33002	Pharmacy-Hwy, 401										
		Scarborough	112	1.81	2.04	2.14	2.27	2.54	3.24	2.22	5.0	2.9
	33003	Lawrence-Kennedy										
	24000	Scarborough	346	1.41	1.58	1.72	1.90	2,37	3.83	1.87	13.5	3.4
	34002	Science Centre, Don Mills North York	450	4.40	4.55							
	34007	Bathurst-Wilson	153	1.42	1.57	1.71	1.99	2.98	5.08	2.03	7.9	3.9
	34007	North York	347	1.52	1,76	1.94	2.17	2.61	0.70	0.07		
	35003	Elmcrest Rd.	347	1,02	1.70	1.94	2.17	2.61	3.72	2.07	7.6	3.7
		Etobicoke	356	2.03	2.21	2.35	2.56	3.17	4.84	2.56	13.8	4.0
	35033	Evans-Arnold				00	2.00	5,17	7.04	2.56	13.0	4.0
		Etobicoke	349	1.23	1.42	1.57	1.76	2.19	3.45	1.72	6.6	3.0
	44010	1298 Rebecca St.							2.7 (80)		0.0	0.0
		Oakville	231	1.60	1.82	2,00	2.20	2.67	3.63	2.12	7.2	3.5

Table 8/1978 Summary of Data: Reactive Hydrocarbons (all values are in p.p.m.)
No Existing Criteria

	STATION		NO. OF			PERCE	NTILES			ARITH- METIC	MA	XIMUM
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1-HR.	24-HR.
WEST	27037	North/Geneva Sts.										
CENTRAL	29025	St. Catharines Barton-Wentworth	213	0.02	0.09	0.16	0.24	0.46	1.23	0.27	3.9	1.3
		Hamilton	306	0.52	1.09	1.63	2.10	2.86	4.07	1.72	5.4	4.0
CENTRAL	31001	67 College St., 5th floor										
		Toronto	279	0.00	0.09	0.19	0.29	0.54	1.31	0.29	5.9	1.5

Table 9/1978 Summary of Data: Ozone (all values in p.p.m.)
Ontario Criteria — 1 Hour Average: 0.08 p.p.m.

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	9 30	ERCEI	NTILE 70	S 90	99	ARITH- METIC MEAN		CIMUM 24-HR.	NUMBER OF TIMES ABOVE CRITERION 1 HR.
SOUTH-	10001	College of Agric. Tech.									8 13 100 04		
WEST		Huron Park	353	.008	.019	.027	.035	.052	.089	.030	.134	.098	196
	12008	467 University Ave. Windsor	354	.000	.003	.010	.022	.044	.098	.018	.211	.077	201
	13021	MOE Pump Station					7,						
		Middle Rd. Merlin	342	.006	.015	.024	.034	.053	.093	.028	.137	.101	200
	14049	156 Victoria St.	100	002	014	021	.027	.040	.081	.023	.129	.060	51
	14064	Sarnia Centennial Park	198	.003	.014	.021	.027	.040	.001	.023	.129	.000	51
		Front St./CN Tracks Sarnia	161	.000	.006	.014	.022	.041	.087	.018	.142	.055	56
	14118	PUC Water Pump Stn.	101	.000	.000	.014	,022	,041	.007	.010.	.142	.055	50
		Hwy. 21 Petrolia	297	.004	.016	.025	.036	.055	.106	.029	.148	.091	249
	15001	King-Rectory	297	.004									
		London	361	.000	.008	.016	.025	.043	.082	.020	,111	.069	102
WEST	22071	Experimental Farm	2.02	20.40									
CENTRAL	26029	Simcoe Edna/Frederick St.	349	.009	.020	.030	.044	.066	.107	.035	.171	.116	348
		Kitchener	323	800.	.013	.025	.035	.055	.096	.028	.137	.097	240
	27037	North/Geneva St. St. Catharines	359	.001	.010	.019	.030	.052	.090	.024	.148	.084	190
	29025	Barton-Wentworth Hamilton	347	.000	.005	.012	.020	.037	.078	.016	.119	.074	71
		паниноп	347	.000	.005	.012	.020	.037	.076	.010	.113	.074	r st.
CENTRAL	31001	67 College St., 5th floor Toronto	364	.000	.005	.012	.021	.038	.081	.017	.135	.066	99
	31105	Sherbourne/Wilton											
	33003	Toronto Lawrence-Kennedy	364	.000	.003	.007	,015	.028	.062	.012	.102	.052	19
		Scarborough	364	.000	.005	.012	.021	.039	.084	.017	.128	.064	111
	34002	Science Centre Don Mills											
	35003	North York Elmcrest Rd.	156	.000	.002	800.	.017	.035	.098	.014	.140	.064	77
		Etobicoke	361	.000	.005	.014	.023	.043	.090	.019	.135	.089	180
	35033	Evans-Arnold Etobicoke	343	.000	.003	.007	.014	.032	.074	.013	.116	.057	52
	44010	1298 Rebecca St.								000			24
	45125	Oakville Natural Res. Bldg.	325	.000	800.	.017	.026	.042	.085	.020	.142	.069	94
	46110	Orono Queensway West/	345	.006	.019	,027	.036	.054	.099	.030	.181	.087	252
	46110	Hurontario St.											
	47030	Mississauga Muck Res. Stn. Hwy. 400/	358	.000	.006	.015	.025	.040	.076	.019	.129	.056	60
	17.000	Canal Rd.											
	48002	Holland Marsh MTC Yard	60	.000	.011	.027	.042	.074	.102	.031	.124	.066	91
		Stouffville	365	.005	.015	.023	.036	.058	.090	.029	.142	.077	210
	58034	1.6 m West Hwy, 28/ 5th Line Rd,											
		Wesleyville	248	800.	.022	.031	.040	.061	.109	.034	.171	.084	305
SOUTH-	51001	McDonald Gdns.											
EAST	56051	Ottawa Memorial Park	323	.000	.008	.016	.024	.039	.078	.019	.133	.079	66
	00001	Cornwall	360	.004	.014	.022	.030	.052	.089	.026	.116	.090	158
NORTH-	77016	Ash Street											
EAST		Sudbury	361	.005	.010	.014	.020	.034	.071	.018	.118	.088	44

Table 10/1978 Summary of Data: Total Reduced Sulphur (all values in p.p.b.)
No Existing Criteria

	STATION		NO. OF			PERCE	NTILES			ARITH- METIC	МА	XIMUM
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN		24-HR.
SOUTH-	14049	156 Victoria St.										
WEST	18001	Sarnia MacKenzie, RR2	244	0,0	0.0	0.0	0.0	2.5	11.0	0.9	38	12
	10001	Tiverton	328	0.0	0.0	0.0	0.0	0.0	0.7	0.0	7	2
WEST	29008	North Park										
CENTRAL	29025	Hamilton Barton-Wentworth	281	0.0	0.0	0.1	0.9	2.6	8.1	1.2	36	9
	25025	Hamilton	309	0.0	0.0	0.0	8.0	2.9	19.8	1.6	66	15
SOUTH-	56051	Memorial Park										
EAST	56068	Cornwall 435 Second St. W.	166	0.0	0.0	8.0	2.8	7.8	21.0	3.0	75	13
	30000	Cornwall	354	0.0	0.0	1.0	2.9	9.4	31,7	3.7	96	22
NORTH-	61026	56 King St.										
WEST	62030	Dryden Portage/Church	282	0.0	0.0	0.0	0.7	15.0	126.4	6.7	479	124
	62030	Fort Frances	304	0.0	0.0	0.0	4.8	46.3	221.3	16.1	540	183
	62032	Cemetery, Colonization Rd.										
	63046	Fort Frances Montreal St.	281	0.0	0.0	0,0	0.0	6.1	38.5	2.5	134	27
	Commence and S	Thunder Bay	280	0.0	0.0	0.0	0.6	5.7	20.3	1.9	48	12

Table 11/1978 Summary of Data: Nitrogen Dioxide (all values in p.p.m.)
Ontario Criteria — 1 Hour Average: 0.20 p.p.m. 24-Hour Average: 0.10 p.p.m.

	STATION		NO. OF			PERCE	NTILE	s		ARITH- METIC	MAX	KIMUM		R OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	1 HR.	24-HR.
SOUTH-	12008	467 University Ave.												
WEST		Windsor	360	.014	.025	.034	.043	.058	.090	.040	.21	.10	1	NIL
	14049	156 Victoria St.												
		Sarnia	160	.007	.015	.022	.032	.051	.085	.031	.15	.08	NIL	NIL
	14064	Centennial Park												8C H
		Front St./CN Tracks												
		Sarnia	87	.003	.012	.017	.024	.037	.056	.024	.12	.04	NIL	NIL
	15001	King-Rectory												1.7 · · ·
		London	231	.008	.017	.024	.032	.045	.070	.031	.14	.08	NIL	NIL
WEST	22071	Experimental Farm												
CENTRAL		Simcoe	290	.001	.004	.007	.012	.020	.036	.014	.08	.04	NIL	NIL
	22086	Cheapside Rd.									1.7	500 07	, <u>.</u>	
		3 Km S. of Hwy. 3												
		Nanticoke	194	.000	.002	.005	.009	.020	.045	.012	.08	.05	NIL	NIL
	26029	Edna/Frederick St.											7 425-	
		Kitchener	352	.006	.016	.025	.035	.050	.076	.032	.12	.08	NIL	NIL
	27037	North/Geneva St.												
		St. Catharines	359	.002	.011	.016	.023	.033	.053	.022	.10	.06	NIL	NIL
	29008	North Park									33. 3	AT (20)		
		Hamilton	327	.008	.019	.032	.044	.067	.106	.040	.14	.11	NIL	1
	29025	Barton-Wentworth										***		•
		Hamilton	361	.012	.024	.035	.052	.077	.122	.046	.18	.12	NIL	3
CENTRAL	31001	67 College St., 5th floor												
		Toronto	364	.010	.018	.025	.033	.048	.080	.032	.15	.08	NIL	NIL
	31105	Sherbourne/Wilton								.002		.00		MIL
		Toronto	363	.014	.022	.028	.035	.049	.077	.035	.24	.09	1	NIL
	33002	Pharmacy-Hwy, 401			4					.000	.27	.00		MIL
		Scarborough	333	.013	.023	.029	.036	.048	.080	.035	.13	.09	NIL	NIL
	33003	Lawrence-Kennedy										.00		1416
		Scarborough	359	.004	.016	.025	.034	.048	.083	.031	.15	.08	NIL	NIL
										.001		.00		1916

Table 11/1978 - Continued . . .

	STATION		NO. OF		F	PERCE	NTILE	S		ARITH- METIC	MAX	CIMUM		R OF TIMES
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1 HR.	24-HR.	1 HR.	24-HR.
CENTRAL	34002	Science Centre Don Mills												
		North York	156	.004	.012	.019	.027	.039	.076	.026	.12	.09	NIL	NIL
	34007	Bathurst-Wilson												
		North York	357	.008	.019	.028	.039	.064	.109	.038	.18	.11	NIL	1
	35003	Elmcrest Rd.	362	.003	.011	.017	.025	.038	.064	.025	.12	.06	NIL	NIL
	35033	Etobicoke Evans-Arnold	362	.003	.011	.01.7	.025	.030	.064	.025	.12	.00	INIL	NIL
	33033	Etobicoke	342	.012	.021	.027	.035	.048	.071	.034	.13	.07	NIL	NIL
	44010	1298 Rebecca St.												
		Oakville	290	.000	.006	.012	.019	.034	.059	.020	.15	.05	NIL	NIL
	46110	Queensway West/												
		Hurontario St. Mississauga	332	.004	.012	.018	.025	.038	.068	.025	.12	.07	NIL	NIL
		ivitaataabugu	352	.004	.012	.010	.020	.000	.000	,020		,		
SOUTH-	51001	McDonald Gardens												
EAST		Ottawa	364	.000	.005	.011	.018	.031	.053	.018	.09	.05	NIL	NIL
	56051	Memorial Park	260	000	001	OOF	010	022	.044	.012	.10	.05	NIL	NIL
		Cornwall	360	.000	.001	.005	.010	.022	.044	.012	.10	.00	NIL	NIL
NORTH-	77016	Ash Street												
EAST		Sudbury	331	.000	.003	.006	.009	.019	.038	.012	.09	.05	NIL	NIL

Table 12/1978 Summary of Data: Nitric Oxide (all values in p.p.m.)
No Existing Criteria

	STATION		NO. OF			PERCEI	NTILES			ARITH- METIC	MAX	XIMUM
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1-HR.	24-HR
SOUTH-	12008	467 University Ave.		5.3.			10 Mar 20					
WEST		Windsor	363	.000	.003	.009	.023	.063	.188	.027	.87	.18
	14049	156 Victoria St.	100	000	.003	.009	.018	.036	.100	.019	.24	.08
	14064	Sarnia Centennial Park	192	.000	.003	.009	.018	.036	.100	.019	.24	.00
	14064	Front St./CN Tracks										
		Sarnia	141	.000	.002	.007	.015	.043	.107	.019	.37	.07
	15001	King-Rectory										
		London	256	.000	.001	.007	.015	.043	.168	.020	.44	.15
WEST-	22071	Experimental Farm			000	000		200	000	0.05	0.0	.03
CENTRAL	00000	Simcoe	286	.000	.000	.000	.004	.009	.026	.005	.06	.03
	22086	Cheapside Rd. 3 Km S. of Hwy. 3										
		Nanticoke	197	.000	.000	.000	.000	.003	.023	.002	.07	.02
	29008	North Park	,,,,,	,000	,000	.000		1000	12.55			
		Hamilton	338	.000	.007	.044	.091	.165	.306	.069	.69	.24
	29025	Barton-Wentworth							2.0		10.0	
		Hamilton	362	.000	.001	.009	.022	.063	.193	.027	.60	.15
CENTRAL	31001	67 College St., 5th floor										
CENTRAL	31001	Toronto	365	.000	.003	.008	.018	.045	.135	.022	.41	.14
	31105	Sherbourne/Wilton		,000						8.700.700		
		Toronto	363	.004	.014	.025	.046	.099	.259	.048	.92	.21
	33002	Pharmacy-Hwy. 401							100000000000	00.00		
	21221	Scarborough	338	.000	.014	.065	.180	.332	.588	.129	.96	.40
	33003	Lawrence-Kennedy	358	.001	.010	.025	.051	.103	.277	.049	.83	.18
	34002	Scarborough Science Centre	356	.001	.010	.025	.051	.103	.211	.049	.03	.10
	34002	Don Mills, North York	156	.000	.002	.008	.020	.084	.359	.036	.65	.24
	34007	Bathurst-Wilson	, 00									
		North York	360	,001	.010	.037	.113	.255	.514	.095	.93	.40
	35003	Elmcrest Rd.										
		Etobicoke	363	.000	.002	.006	.014	.063	.237	.026	.67	.20
	35033	Evans-Arnold	335	.003	.017	.037	.068	.142	.361	.065	.77	.24
	44010	Etobicoke 1298 Rebecca St.	335	.003	.017	.037	.000	.142	.301	.005	.7.7	.24
	44010	Oakville	304	.000	.006	.013	.023	.058	.163	.028	.48	.10
		200,1110										

Table 12/1978 - Continued . . .

	STATION		NO. OF			PERCE	NTILES			ARITH- METIC	MAX	XIMUM
REGION	NUMBER	LOCATION	DAYS	10	30	50	70	90	99	MEAN	1-HR.	24-HR.
CENTRAL	46110	Queensway West/ Hurontario St. Mississauga	319	.000	.006	.015	.029	.073	.214	.034	.95	.19
SOUTH- EAST	51001 56051	McDonald Gdns. Ottawa Memorial Park Cornwall	256 363	.000	.000	.005	.014	.044	.176 .114	.020	.62 .74	.16 .12
NORTH- EAST	77016	Ash Street Sudbury	335	.000	.000	.000	.002	.010	.092	.007	.27	.10

Table 13/1978 Summary of Data: Nitrogen Oxides (all values in p.p.m.)
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS		PERCENTILES					ARITH- METIC	MAXIMUM	
				10	30	50	70	90	99	MEAN		24-HR
SOUTH-	12008	467 University Ave.										
WEST		Windsor	358	.021	.037	.051	.071	.116	.240	.068	.96	.26
	14049	156 Victoria St.	455						500mm 20			
	14064	Sarnia Centennial Park	155	.014	.029	.040	.056	.090	.172	.053	.30	.15
	14004	Front St./CN Tracks										
		Sarnia	87	,010	.021	.030	.045	.073	.142	.043	.39	.09
	15001	King-Rectory			,021	.000	.045	.073	.142	.043	.39	.09
		London	231	.011	.024	.036	.053	.090	.230	.052	.51	.22
WEST- CENTRAL	22071	Experimental Farm										
		Simcoe	286	.002	.007	.012	.018	.029	.053	.019	.10	.05
	22086	Cheapside Rd.									.,,	.00
		3 Km S. of Hwy. 3										
		Nanticoke	194	.000	.002	.006	.010	.025	.064	.014	.12	.06
	29008	North Park										
	29025	Hamilton Barton-Wentworth	311	.001	.039	.093	.147	.217	.350	.110	.76	.30
	29025	Hamilton	360	.015	.036	.057	000	400	054			
		Hammon	300	.013	.030	.057	.083	.129	.251	.073	.64	.22
CENTRAL	31001	67 College St., 5th floor										
		Toronto	364	.015	.029	.040	.056	.091	.191	.054	.49	.21
	31105	Sherbourne/Wilton								a salari, v		
	22222	Toronto	363	.027	.044	.062	.087	.144	.315	.083	1.02	.30
	33002	Pharmacy-Hwy, 401	222	000	0.40	400		2_2				
	33003	Scarborough Lawrence-Kennedy	333	.020	.049	.102	.218	.373	.642	.165	1.02	.43
	00000	Scarborough	358	.016	.038	.059	.087	.146	.330	000	00	05
	34002	Science Centre	000	.010	.000	.033	.007	.140	.330	.080	.89	.25
		Don Mills, North York	156	.009	.021	.035	.056	.119	.408	.062	.76	.29
	34007	Bathurst-Wilson							. 100	.002	.70	.23
	2022	North York	355	.016	.036	.079	.168	.310	.561	.133	.98	.46
	35003	Elmcrest Rd.			**************************************	A 400 COM TOTAL AND CO.						
	35033	Etobicoke Evans-Arnold	361	.007	.019	.029	.047	.100	.144	.279	.68	.24
	33033	Etobicoke	324	.025	.049	.073	.108	100	440	222		
	44010	1298 Rebecca St.	324	.025	.049	.073	.108	.186	.410	.099	.81	.29
		Oakville	286	.007	.020	.030	.046	.093	.215	.048	.51	.14
	46110	Queensway West/						.000	.215	.040	.51	.07
		Hurontario St.										
		Mississauga	317	.015	.027	.038	.056	.108	.251	.058	.71	.16
SOUTH- EAST	51001	McDonald Gdns.										
		Ottawa	256	.003	.011	.019	.034	.070	.190	.036	.53	.20
	56051	Memorial Park					3,0,=, 1	1,30,50,30			.00	.20
		Cornwall	360	.000	.002	.008	.016	.037	.155	.020	.79	.15
NORTH-	77016	Ash Street										
EAST		Sudbury	331	.000	.004	.008	.016	.034	.131	.019	.32	.15

Table 14/1978 Ontario's Air Pollution Index

WINDSOR

 Date Started:
 TORONTO
 — MARCH 23, 1970
 WELLAND
 — JANUARY 1, 1974 (Closed Oct. 1978)

 HAMILTON
 — JUNE 15, 1970
 NIAGARA FALLS
 — NOVEMBER 1, 1974

 SUDBURY
 — JANUARY 16, 1971
 CONISTON
 — FEBRUARY 18, 1975

**NEW SUDBURY** 

MARCH 19, 1971

- MARCH 1, 1976

**DECEMBER 1, 1977** HAPPY VALLEY MAY 13, 1971 (Closed Jan. 1975) SARNIA MAXIMUM DATE OF NUMBER OF OCCASIONS CITY INDEX MAXIMUM YEAR ≥ 50 ≥ 32 1970 TORONTO 17 2 56 OCT. 8 56 OCT. 8 2 1 HAMILTON 1 52 APR. 13 19 1971 TORONTO NIL 48 OCT 21 HAMILTON 23 87 DEC. 11 SUDBURY 26 3 33 NOV. 10 2 NH WINDSOR HAPPY VALLEY 20 7 64 NOV. 21 1972 TORONTO 2 NIL 45 FEB. 13 NIL 41 FEB. 13 6 HAMILTON SUDBURY 7 1 79 JUNE 12 JAN. 9 1 53 29 WINDSOR 139 MAR. 23 HAPPY VALLEY 20 11 43 OCT. 24 3 NIL 1973 TORONTO NIL 34 FEB. 14 HAMILTON 2 NII 26 MAR. 14 NIL SUDBURY WINDSOR NIL 44 FEB. 19 HAPPY VALLEY 19 10 94 AUG. 21 OCT. 29 3 1 50 1974 TORONTO HAMILTON 11 NIL 44 OCT. 29 32 JULY 13 SUDBURY NIL 41 JAN. 7 WINDSOR 2 NIL 23 HAPPY VALLEY 24 13 116 APR. OCT. WELLAND 46 15 77 6 20 NOV. 9 NIAGARA FALLS NIL NIL NOV. 20 2 62 1 1975 TORONTO HAMILTON 10 NIL 38 OCT. 24 30 FEB. NIL NIL SUDBURY FEB. WINDSOR NIL NIL 28 11 NIL 23 JAN. 24 WELLAND NIL 21 NOV. 24 NIAGARA FALLS MIL NIL CONISTON NIL NIL 30 MAY 13 OCT. 3 NII 33 1 1976 TORONTO HAMILTON 8 NIL 41 DEC. 16 NIL NIL 28 JUNE 6 SUDBURY 34 DEC. 16 WINDSOR NIL WELLAND NIL NIL 24 DEC. 16 NIL 25 FEB. 21 NIAGARA FALLS NIL SEPT. 29 CONISTON NIL NIL 16 **NEW SUDBURY** NIL NIL 29 APR. 2,3 & 20 JUNE JAN. 1977 TORONTO 4 NIL 15 36 44 MAR. NIL 12 HAMILTON 10 NIL 24 JUNE 11 SUDBURY NIL 33 APR. 19 WINDSOR (12008) NIL JAN, 24, 25 WELLAND NIL NIL 22 NIAGARA FALLS FEB. 21 NIL NIL 28 25 APR. 25 CONISTON NIL NII NIL 29 APR. 19 WINDSOR (12016) NIL JUNE 39 **NEW SUDBURY** 1 NIL 11 SARNIA NIL NIL 15 DEC. 13 5 2 NIL 45 NOV. 1978 TORONTO HAMILTON NIL 43 NOV. 4 JAN. 22 NIL NIL 31 SUDBURY WINDSOR (12008) NIL 33 APR. 19 MAR. NIL NIL 24 15 WELLAND 23 NOV. 4 & NIAGARA FALLS NII. NIL CONISTON 3 NIL 34 FEB. 7 28 18 WINDSOR (12016) NIL NIL FEB. FFB. 2 NIL 42 **NEW SUDBURY** 1 SARNIA 3 NIL 41 JAN. 24

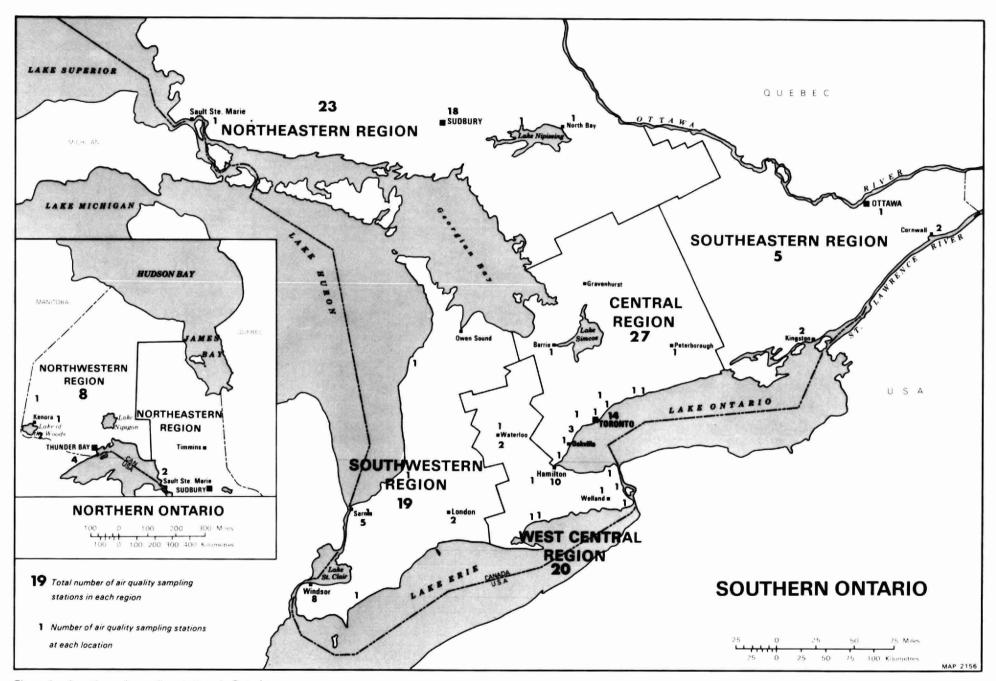


Figure 1. Locations of sampling stations in Ontario.

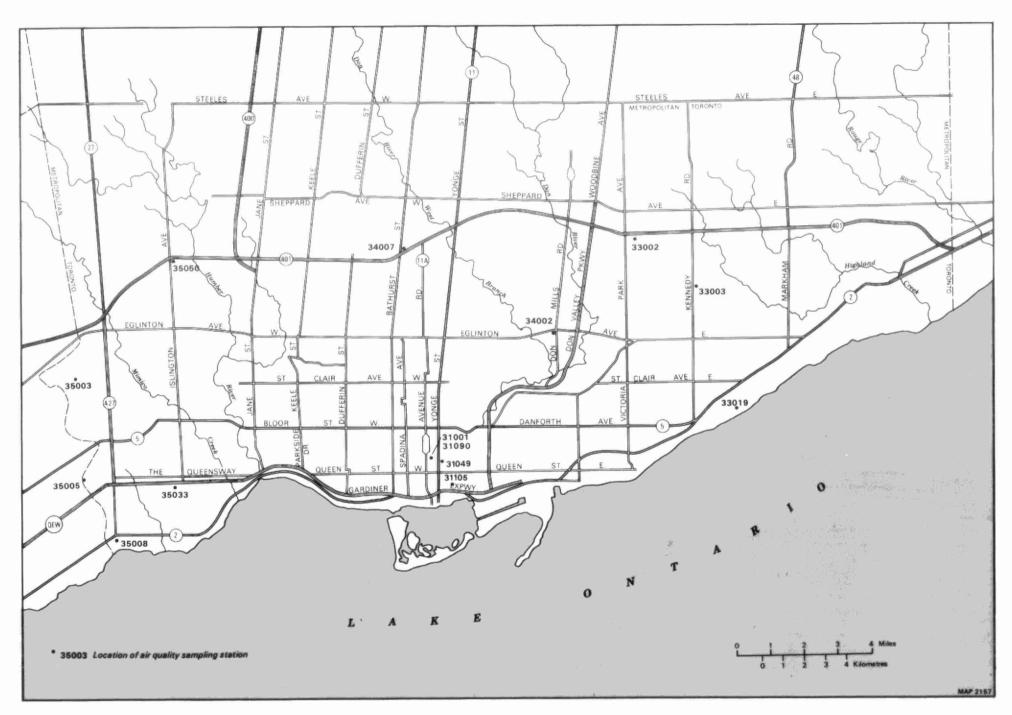


Figure 2. Locations of sampling stations in Metropolitan Toronto.

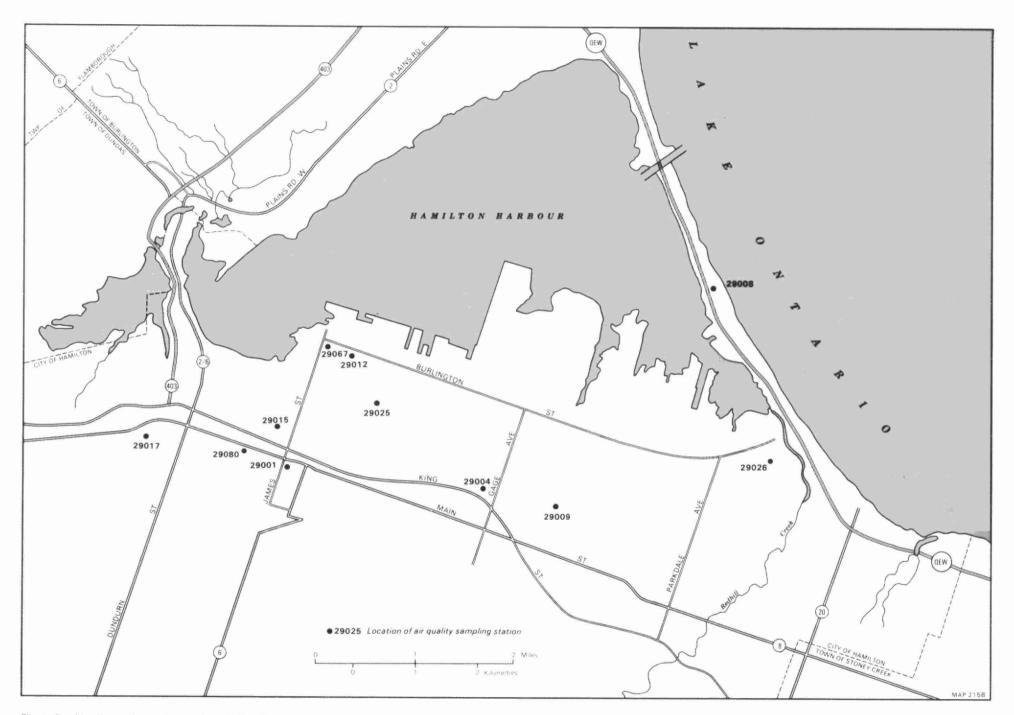


Figure 3. Locations of sampling stations in Hamilton.

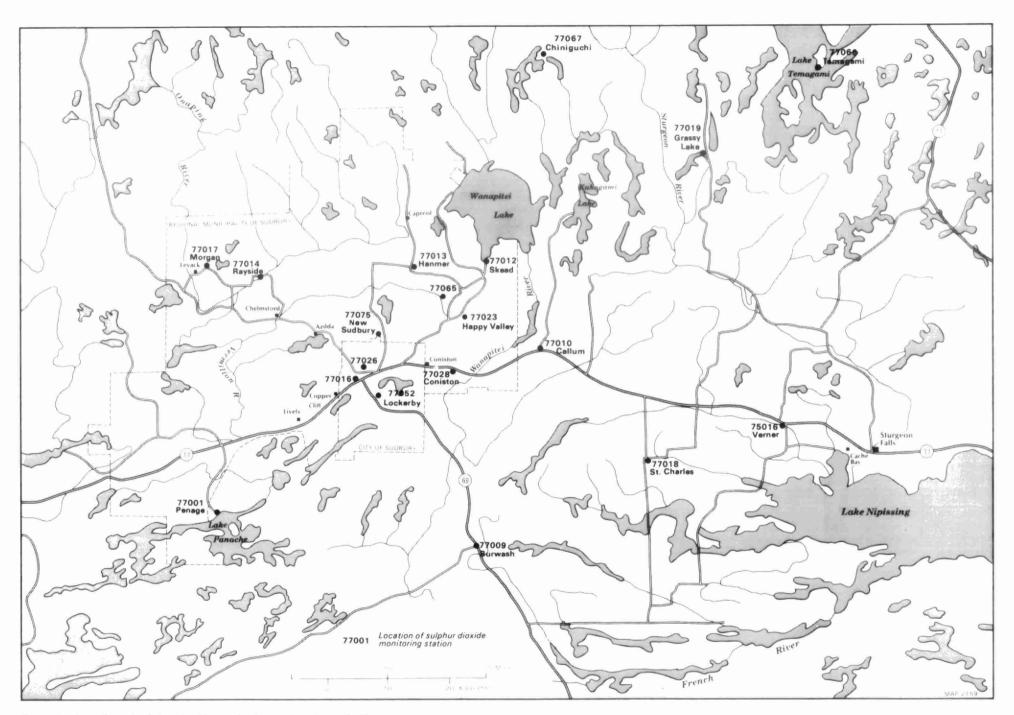


Figure 4. Locations of sulphur dioxide monitoring stations in the Sudbury area.

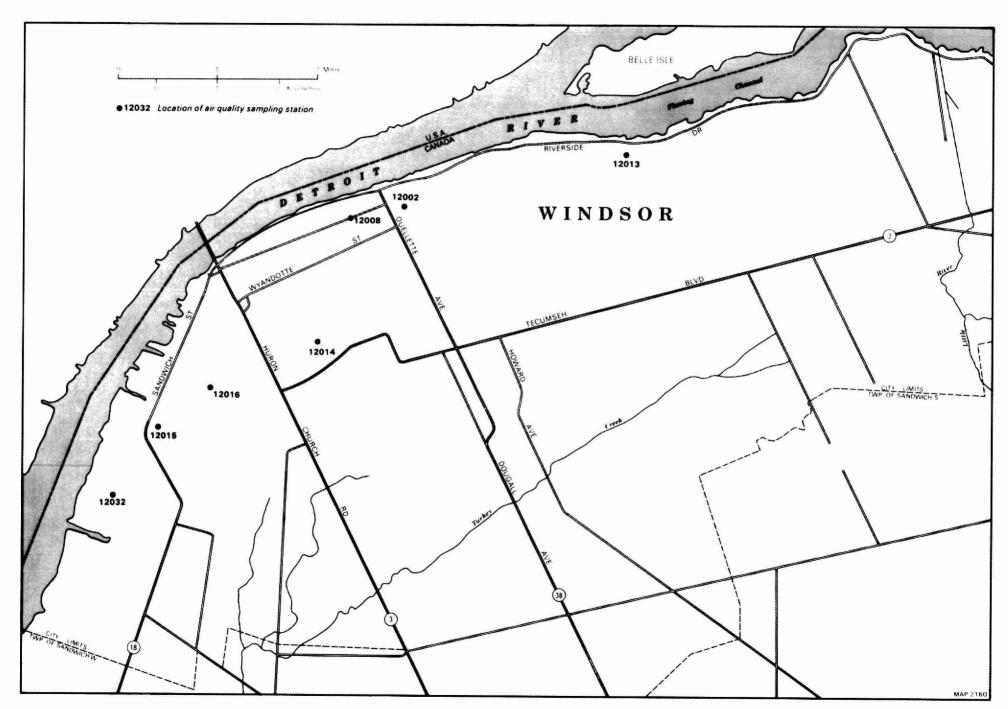


Figure 5. Locations of sampling stations in Windsor.

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